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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,149	03/22/2006	John William Smith	020406 047P2	3164
33805 7590 05/09/2008 WEGMAN, HESSLER & VANDERBURG 6055 ROCKSIDE WOODS BOULEVARD SUITE 200 CLEVELAND, OH 44131				
EXAMINER				
SCHNEIDER, CRAIG M				
ART UNIT		PAPER NUMBER		
3753				
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05/09/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/573,149

**Applicant(s)**

SMITH, JOHN WILLIAM

**Examiner**

CRAIG M. SCHNEIDER

**Art Unit**

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/22/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 5/30/06

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the reduced bore portion of claim 15 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 69 on page 17, line 24. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities:  
On page 13 the "DETAILED DESCRIPTION ..." heading was inserted at line 10 but should have been inserted at line 15.  
On page 15, line 11 "cavity 34" should be --cavity 38--.

On page 15, line 24 "figure 2." should be --figure 4.--.

On page 15, line 32 "valve" should be --valve--.

On page 16, line 4 "float 44" should be --float 46--.

On page 20, line 25 "body 132 and lower body 126" should be --body 126 and lower body 132--.

On page 20, line 27 "body 132" should be --body 126--.

On page 20, line 35 "bore 130" should be --bore 170--.

On page 21, lines 1, 2, and 11 "bore 131" should be --bore170--.

On page 21, line 13 "portion 51." should be --portion 151.--

On page 21, line 25 "nozzle" should be --nozzle 4--.

On page 21, line 27 "ports" should be --bore--.

On page 22, line 20 "sawing" should be --saving--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Regarding claim 15, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by

"or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

7. Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 19 recites the limitation "the responsive element" in line 2. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 21 recites the limitation "the cistern" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Carnahan (2,766,769).

Carnahan discloses an inlet valve as shown in Figure 1 controlling the introduction of fluid into a vessel, the vessel (col. 1, lines 15-21) forming a reservoir for the fluid and having an inlet admitting replacement fluid from a fluid supply (water

coming through 35) into the vessel to replace fluid discharged from the vessel by flow of fluid from the supply inlet of the vessel through the inlet valve, the inlet valve comprising a valve body member (3) and a movable valve element (4) that is movable with respect to the valve body member between a first position corresponding to a closed condition preventing flow of fluid through the inlet valve and a second position corresponding to an open condition allowing a flow of fluid through the inlet valve to replenish or replace the supply of fluid within the vessel after discharge of fluid from the vessel wherein there is a clearance portion (45 and 46) associated with the valve body member or the movable element, the clearance portion being arranged such that when the movable element is in the closed position within the inlet valve there is a space or gap between the movable element and the valve body member allowing flow of gas into and/or through the valve between the movable element and the valve body member so as to provide a facility of or for a gas gap in the valve wherein the gas gap prevents unwanted flow of liquid from the vessel into the supply of fluid when the inlet valve is in the closed position (col. 1, line 57 to col. 3, line 60).

Regarding claim 2, the vessel is a cistern of a toilet (col. 4, line 7).

Regarding claims 3 and 16, an adjustable support member (the threaded end of 35) adjusts the mounting of the valve within the cistern.

Regarding claims 4 and 5, the movable valve element is a substantially elongate member as depicted in Figure 1, which is a plunger, cylindrical rod, bar, shaft or similar.

Regarding claim 6, the movable valve element has a sealing end (from channel 46 to 23) being curved, rounded, tapered, or beveled (col. 3, lines 7-11).

Regarding claim 7, the sealing end (23) of the movable valve element sealingly engages with a complimentary sealing means (21) provided on or associated with the valve member to close the valve to prevent incoming water from flowing into the valve.

Regarding claim 8, the valve comprises an operating mechanism including one or more levers (5) pivotally connected together and connected to the movable valve element such that movement of one or more of the levers moves the movable valve element.

Regarding claim 9, the clearance portion (45 and 46) is a space, gap, looseness of fit, clearance, cut-out, rebate, groove, indent or similar located at one or more points or regions along the length of the movable valve element allowing air to flow past and/or through the clearance to reduce siphoning of water from the cistern as depicted in Figure 1.

Regarding claim 10, the clearance portion (45 and 46) is located at or towards the central portion or region of the movable valve element or at towards one end of the movable valve element as depicted in Figure 1.

Regarding claim 11, the movable valve element is provided with a reduced size or diameter portion (45 and 46) such as for example a neck portion or waist portion allowing air to flow between the movable valve element and the valve body.

Regarding claim 12, the clearance (45 and 46) is located on or around the outside surface of the plunger.

Regarding claim 13, the clearance portion (45 and 46) is continuous or is segmented having portions defining gaps or spaces therebetween as depicted in Figure 1.

Regarding claim 14 as understood, a plunger (4) is associated with a plunger guide housing or shroud (3).

Regarding claim 15 as understood, the plunger guide housing or shroud is provided with a channel, groove, reduced bore portion, rebate, aperture or the like for providing clearance between the plunger. The bore of the valve body member (3) is sized to provide clearance between the movable valve element and the body member. Therefore the "plunger guide housing" has an "aperture" which is sized to provide clearance between the plunger and the housing.

Regarding claims 17 and 18, the inlet valve includes an element (8) responsive to changes in the water level within the cistern and the element responsive to changes in the water level is responsive to the effective buoyancy and/or gravity.

Regarding claims 19 and 20, the responsive element (8) is a float which is pivotally (7) connected to the valve arrangement. The float moves with a flip action (low water level to high water level) or positive snap action to substantially instantaneously close the supply of incoming water.

Regarding claim 21, an air gap (45 and 46) is located within the inlet valve to prevent siphoning of back flow of water within the cistern so as to reduce, eliminate or prevent contamination of the water supply.



***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Svirsky (2,270,910), Patten (2,664,913), and Person (2,869,572) disclose a inlet valve that provides anti-siphoning. Schoepe (4,100,928) discloses an inlet valve with an adjustable height device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CRAIG M. SCHNEIDER** whose telephone number is (571)272-3607. The examiner can normally be reached on M-F 8:30 -5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. M. S./  
Examiner, Art Unit 3753  
May 6, 2008

/John Rivell/  
Primary Examiner, Art Unit 3753

